PROC. BIOL. SOC. WASH.
94(3), 1981, pp. 669–674

AN ADDITION TO THE FISH FAUNA OF THE GULF OF MAINE WITH RECORDS OF RARE SPECIES

Hugh H. DeWitt, Paul A. Grecay, John S. Hacunda, B. Paul Lindsay, Richard F. Shaw, and David W. Townsend

Abstract.—*Xenolepidichthys dalgleishi* is reported for the first time in the Gulf of Maine; other fishes rare in the Gulf of Maine are reported.

Since the fall of 1969 the first author and various of his students have maintained a file on the occurrences of rare and unusual fishes in the Gulf of Maine, both of specimens collected by or turned over to them, and of reports from friends. Most of the records concern species well known south of the Gulf, but which have been reported from it only a few times. For some species the records are more significant. *Lampris guttatus* and *Sphyraena borealis* are here reported for the first time from well within the Gulf, and *Xenolepidichthys dalgleishi* is added to the fauna of the Gulf.

We have used the order and nomenclature given by Robbins *et al.* (1980). Unless otherwise noted, specimens are in the fish collection at the Ira C. Darling Center of the University of Maine, Orono (UMDC).

We wish to thank the fishermen who have either saved the "odd" specimens for us, have made photographs and other information available, or who have given of their time and hospitality. Mr. William Townsend of East Sullivan, Maine, sent us records of sightings and specimens from eastern Maine.

Xenolepidichthys dalgleishi Gilchrist, spotted tinselfish

Two specimens, 78.7 and 79.1 mm SL, were collected in shrimp trawls as follows: 6 mi S of Small Point, Maine (ca. 43°36′N, 69°50′W), in 90–100 m, 3 January 1975, by Lester Savage (UMDC 383-1); and 12 mi S of South Bristol, Maine (ca. 43°40′N, 69°33′W), in 100–160 m, 26 March 1976, by Bruce Morton (UMDC 382-1). This species has been recorded once from the continental shelf off the New Jersey coast by Fowler (1937) who misidentified it as *Grammicolepis brachiusculus* Poey. It has been recorded elsewhere from waters of South Africa, British Honduras, southern Brazil, Japan, the Philippines (Karrer, 1968) and the western Caribbean (Mowbray, in Breeder, 1927, as *G. squamilineatus*; Bullis and Struhsaker, 1970). Unreported collections have been made in the northern Gulf of Mexico. The present specimens are the first from the Gulf of Maine and were obtained

Table 1.—Measurements and counts from two specimens of *Xenolepidichthys dalgleishi* from the Gulf of Maine.

UMDC Cat. No.	383-1	382-1		383-1	382-1
Measurements (mm)			Counts		
Standard length	78.7	79.1	1st dorsal fin	V	V
Head length	24.9	24.4	2nd dorsal fin	27	28
Orbital diameter	10.7	11.7	Anal fin	II, 28	II, 28
Snout length	7.3	7.5	Caudal fin	15	15
Interorbital width	6.8	7.4	Pectoral fin	15 and 15	14 and 14
Cheek depth	7.2	7.7	Pelvic fin	I, 6	I, 6
Anal fin base length	47.1	48.4	Dorsal body spines	31	31
Dorsal fin base length	44.0	47.7	Ventral body spines	27	27
Body depth[1]	63.8	70.6			
Caudal peduncle length	9.7	8.8			
Caudal peduncle depth	4.6	5.0			
Dorsal peduncle length[2]	11.0	10.6			
Snout to dorsal origin	38.7	41.9			
Snout to anal origin	54.8	56.1			
Pectoral to 1st anal spine[3]	29.2	30.7			
Pectoral to pelvic distance[3]	21.8	24.7			
Caudal fin length	20.0	17.7			

[1] From base of 1st dorsal spine to base of 1st anal spine.
[2] From base of last dorsal fin ray to midbase of caudal fin.
[3] From lower edge of pectoral base to base of 1st anal spine or pelvic fin.

more than 200 miles inside the edge of the continental shelf. Because the species is not common anywhere and the present records represent a range extension of some 650 km, some counts and measurements are presented in Table 1. A related species, *Daramattus americanus,* has been described from the outer portion of Georges Bank (Nichols and Firth, 1939; Bigelow and Schroeder, 1953; Robbins *et al.,* 1980). It can be distinguished from *X. dalgleishi* in having flat, blade-like projections, composed of scales, on the sides of the body.

Lampris guttatus (Brünnich), opah

A specimen (96.5 cm SL, 52 kg) was found washed ashore on Great Cranberry Island, Maine (ca. 44°14′N, 68°15′W), on 14 December 1979 by Karl Wedge and Wesley Bracey, Jr. Measurements and photographs were obtained and the specimen was discarded. This pelagic species (Fowler, 1933) is rare but widely distributed in open waters of the Atlantic and Pacific (Jordan and Evermann, 1896–1900; Smith, 1961) and is frequently taken off the coast of Europe (Jordan and Evermann, 1905). Previous Gulf of Maine records include one each from Browns Bank in 1932 and Georges Bank in 1947 (Bigelow and Schroeder, 1953). This is the first reported occurrence from the inner Gulf of Maine.

Centropristis striata (Linnaeus), black sea bass

One (identified from a photograph, specimen discarded) was collected in a lobster trap near Baker Island, Maine (ca. 44°16′N, 68°15′W), on 30 January 1973 by Wesley Bracey, Jr., Great Cranberry Island, Maine, and one ripe male (29.5 cm SL) was collected in the same manner on 15 October 1980, south of White Island (ca. 43°46′N, 69°34′W) in approximately 60 m by Lawrence Lane, Nobleboro, Maine (UMDC 381-1). The species is known from Atlantic coastal waters from northern Florida to Cape Cod and occasionally Maine (Bigelow and Schroeder, 1953). It is occasionally taken during summer in the Gulf of Maine, but is considered rare; Pemaquid Point and Matinicus Island, Maine, are the northernmost records (Bigelow and Schroeder, 1953). Those reported here are the only known specimens collected during winter and fall in the Gulf of Maine.

Pogonias cromis (Linnaeus), black drum

One specimen (116 cm TL, 27.3 kg) was collected on 14 July 1978 by Paul Callahan of South Bristol, Maine, in a floating mackerel trap in 7–13 m in Johns Bay, Maine (ca. 43°50′N, 69°31′W). The specimen was discarded. The species ranges from Argentina northward to New Jersey (Silverman, 1979), rarely to southern New England (Bigelow and Welsh, 1925), with a single specimen reported from the Bay of Fundy (Bleakney, 1963). Previous Gulf of Maine records include two or three specimens from Provincetown, Massachusetts, one specimen from the Mystic River, Boston (Bigelow and Welsh, 1925), and one specimen taken from a fish weir in Halls Harbor, Bay of Fundy, Nova Scotia, in 1947 (Bleakney, 1963). This is the third reported specimen north of Cape Cod.

Sphyraena borealis DeKay, northern sennet

One specimen, 62 mm (prob. TL), was collected by James Renwick in a commercial shrimp trawl on 28 January 1974 approximately 7 km S of Schoodic Point, Maine (ca. 44°17′N, 68°02′W). The specimen is in the Sumner High School collection, East Sullivan, Maine. The species is known from the Atlantic and Gulf of Mexico coasts from Panama to Cape Cod (Bigelow and Schroeder, 1953). The only previous Gulf of Maine record is an approximately 5 cm specimen from Nauset Beach, Cape Cod, Massachusetts, in 1930 (Bigelow and Schroeder, 1953). This is the first reported occurrence north of Cape Cod.

Ariomma bondi Fowler, silver rag

Three specimens (113, 125, and 133 mm SL) were caught during August 1979, in Johns Bay, Maine (ca. 43°51′N, 69°31′W), in a mackerel trap by Paul Callahan of South Bristol, Maine (UMDC 380-1). The species is known

from deeper waters of the continental shelf on both sides of the Atlantic (Horn, 1972). There are eight previous Gulf of Maine records, from off Sandwich, Provincetown, and Salisbury, Massachusetts, and off Georges Bank, 1950–1969 (Horn, 1972). This is the first reported occurrence along the Maine coast and, except for one specimen from the southern Gulf of St. Lawrence (McKay and Thomas, 1969), the northernmost record in the western Atlantic.

Paralichthys oblongus (Mitchill), fourspot flounder

One specimen, 21.5 cm SL, was trawled in Johns Bay, Maine (ca. 43°51′N, 69°31′W), on 20 July 1978 in 30 m (UMDC 365-1). The species ranges from Tortugas, Florida, to the waters off Nova Scotia (Ginsburg, 1952), but is found primarily between Delaware Bay and southern New England (Bigelow and Schroeder, 1953). Previous Gulf of Maine records are Gloucester and Salem, Massachusetts (Goode and Bean, 1879a, 1879b), Sheepscot Bay, Maine, in 1958 (Scattergood and Coggins, 1958), and Passamaquoddy Bay and Bay of Fundy in 1958 (Leim and Day, 1959). This is a southern species rarely seen in the Gulf of Maine.

Monacanthus hispidus (Linnaeus), planehead filefish

One adult (photographed and discarded) was captured in a lobster trap off Great Cranberry Island, Maine (ca. 44°14′N, 68°15′W), during June 1971 by Wesley P. Bracey, Jr., and a 111 mm SL specimen was captured in a lobster trap approximately 100 m from shore, SE of Hay Island, Maine (ca. 43°50′N, 69°33′W), in 6 m by Don Stanley of South Bristol, Maine, on 10 September 1980 (UMDC 384-1). The species has a tropical range in the western Atlantic from Brazil northward and is occasionally taken at Woods Hole. Strays are taken as far north as St. Margaret Bay and Halifax Harbor, Nova Scotia (Bigelow and Schroeder, 1953), and Wilsons Beach and Ketch Harbor, New Brunswick (Leim and Day, 1959). Previous Gulf of Maine records are as follows: from Hingham, Lynn, Nahant and Boston Harbor in Massachusetts Bay and on Cape Cod (dates unknown); four specimens off Provincetown between 1929 and 1951, one off Portland Lightship in 1931, one off Seguin Island, Maine, in 1927; 181 fry from the northeastern and one specimen off the western part of Georges Bank in 1927 and 1930 (Bigelow and Schroeder, 1953); from Ketch Harbor and Wilsons Beach, New Brunswick, in 1950 (Leim and Day, 1959). This is a southern species rarely taken in the eastern Gulf of Maine.

Literature Cited

Bigelow, H. B., and W. C. Schroeder. 1953. Fishes of the Gulf of Maine.—United States Fish and Wildlife Service, Fishery Bulletin 53(74):1–577.

———, and W. W. Welsh. 1925. Fishes of the Gulf of Maine.—United States Bureau of Fisheries, Bulletin 40(1):1–567.

Bleakney, J. S. 1963. First record of the fish *Pogonias cromis* from Canadian waters.—Copeia 1963(1):173.

Breeder, C. M. 1927. Scientific results of the First Oceanographic Expedition of the "Pawnee," 1925. Fishes.—Bulletin of the Bingham Oceanographic Collection 1:1–90.

Bullis, H. R., and P. J. Struhsaker. 1970. Fish fauna of the western Caribbean upper slope.—Quarterly Journal of the Florida Academy of Sciences 14(1):43–76.

Fowler, H. W. 1933. A synopsis of the fishes of China. Part V. The cods, opahs, flounders, soles, john dories, berycoids, pipe fishes, silversides, mullets, barracudas and thread fishes.—Hong King Naturalist 4(2):156–175.

———. 1937. Notes on fishes from the Gulf Stream and the New Jersey Coast.—Proceedings of the Academy of Natural Sciences, Philadelphia 89:297–308.

Ginsburg, I. 1952. Flounders of the genus *Paralichthys* and related genera in American waters.—Fishery Bulletin of the United States 52(71):267–351.

Goode, G. B., and T. H. Bean. 1879a. Discoveries of the U.S. Fish Commission. Notices of fifty species of east-coast fishes, many of which are new to the fauna.—American Journal of Science 1879, 3 ser. 17:39–48.

———, and ———. 1879b. A list of the fishes of Essex county.—Bulletin of the Essex Institute 11:1–38.

Horn, M. H. 1972. Systematic status and aspects of the ecology of the elongate ariomonid fishes (suborder Stromateoidei) in the Atlantic.—Bulletin of Marine Science 22(3):537–558.

Jordan, D. S., and B. W. Evermann. 1896–1900. The fishes of North and Middle America.—Bulletin of the United States National Museum 47(1–4):1–3313, 392 pls.

———, and ———. 1905. The aquatic resources of the Hawaiian Islands. Part I. The shore fishes.—United States Fish Commission, Bulletin 23(1):1–574, 138 pls.

Leim, A. H., and L. R. Day. 1959. Records of uncommon and unusual fishes from eastern Canadian waters, 1950–1958.—Journal of the Fisheries Research Board of Canada 16:503–514.

Karrer, C. 1968. Über Erstnachweise und seltene Arten von Fischen aus dem Südatlantik (argentinisch-südbrasilianische Küste).—Zoologishe Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere 95:542–570.

McKay, K. T., and G. Thomas. 1969. First records of *Ariomma bondi, Caranx crysos,* and *Selar crumenophthalmus* (Pisces) in the Gulf of St. Lawrence.—Journal of the Fisheries Research Board of Canada 26(10):2769–2771.

Nichols, J. T., and F. E. Firth. 1939. Rare fishes off the Atlantic coast including a new grammicolepid.—Proceedings of the Biological Society of Washington 52:85–88.

Robbins, C. R., R. M. Bailey, C. E. Bond, J. R. Brooker, E. A. Lachner, R. N. Lea, and W. B. Scott. 1980. A list of common and scientific names of fishes from the United States and Canada.—American Fisheries Society Special Publication 12:174 pp.

Scattergood, L. W., and P. L. Coggins. 1958. Unusual records of Gulf of Maine fishes.—Maine Field Naturalist 14(2):40–43.

Silverman, M. J. 1979. Biological and fisheries data on black drum, *Pogonias cromis* (Linnaeus).—Sandy Hook Laboratory, Northeast Fisheries Center, NMFS, NOAA, Technical Series Report No. 22:35 + vii pp.

Smith, J. L. B. 1961. The sea fishes of southern Africa. Revised ed.—Central News Agency, Ltd., South Africa, 564 pp.

(HHD, RFS, DWT) Department of Oceanography, University of Maine at Orono, Ira C. Darling Center, Walpole, Maine 04573; (PAG) Department of Zoology, University of Maine at Orono, Orono, Maine 04469; (JSH)

Graduate School of Oceanography, University of Rhode Island, Narragansett, Rhode Island 02881; (BPL) Normandeau Associates, Inc., 15 Pickering St., Portsmouth, New Hampshire 03801.